

REMARKS

Claims 1 and 14 have been cancelled herein. New claims 31-42 have been added and are pending.

In the non-final Office Action mailed on 27FEB07, claims 1 and 14 were rejected under 35 U.S.C. § 112, first paragraph because the claim language "... said radial surface does not make contact with a point of the actuator pivot bearing flange..." was allegedly unsupported in the specification as originally filed. These rejections have been overcome herein because claims 1 and 14 have been cancelled, and new claims 31-42 do not include the allegedly unsupported language.

In the non-final Office Action mailed on 27FEB07, claim 1 was rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by US 3,045,265 to Seibert (hereinafter "Seibert"). This rejection has been overcome herein because claim 1 has been cancelled and new claims 31-42 are not anticipated by Seibert. For example, each of new independent claims 31 and 37 requires that the second and third segments must be defined by the relatively larger second radius, and must also be separated from each other by and adjacent to a circumferential gap in the ring. However, Fig. 4 Seibert clearly shows that the segments of ring 30 that are adjacent to and separated by circumferential gap 32 (inclusive of the angle equal and opposite to Φ) are both defined by the smaller radius of curvature (relative to the larger radius of curvature that defines the other segments that are exclusive of angles Φ). Likewise, Fig. 8 Seibert clearly shows that the segments of ring 130 that are adjacent to and separated by its circumferential gap (inclusive of angle Φ' on the right-hand side) are both defined by the smaller radius of curvature (relative to the larger radius of curvature that defines the other segments that are exclusive of angles Φ' – e.g. within angle θ). Accordingly, Seibert can not anticipate claims 31-42 under 35 U.S.C. § 102(b).

The exemplary distinction described above preventing Seibert from anticipating claims 31-42 is not trivial. On the contrary, the locations of the segments defined by the relatively larger radius (i.e. the recessed regions of the interior contour) are important to enable the claimed snap ring to reduce the creation of debris during assembly. For example, the written description of the presently pending patent application carefully

specified the locations of the locally recessed regions 20 and 21 on page 11, lines 7-10, and depicted such locations in Fig. 1. It would be incompatible with the teachings and performance of the presently claimed invention to reduce debris, if the smaller radius of curvature segments were positioned adjacent the circumferential gap, as in Seibert.

Claims 33 and 39 are not anticipated by Seibert for the additional independent reason that the Seibert rings include no segment defined by the smaller radius of curvature "that amounts to at least 50% of the interior contour."

Claims 36 and 42 are not anticipated by Seibert for the additional independent reason that the Seibert rings do not include any tooling hole (e.g. tooling holes 17, and 18 depicted in Fig. 1 of the presently pending patent application), as required by presently pending claims 36 and 42.

Claims 36 and 42 are not anticipated by Seibert for the additional independent reason that the Seibert rings do not meet the width limitation required by the ratio inequality of claims 36 and 42. On the contrary, rings 30 and 130 of Figs. 4 and 8, respectively, in Seibert apparently have uniform width. This is not a trivial distinction because the width limitation of claims 36 and 42 can prevent excessive weakness of the rings claimed therein, according to the written description of the presently pending patent application on page 15 at line 3, through page 16 at line 5.

In the non-final Office Action mailed on 27FEB07, claim 14 was rejected under 35 U.S.C. §103(a) as being obvious over US 6,856,485 to Toh (hereinafter "Toh") in view of Seibert. Applicants hereby traverse this claim rejection. The examiner alleges without citation of authority that there would have been a motivation to combine the teachings of Toh with the teachings of Seibert "because the ring as in Seibert would be easier to manufacture since it is simply formed from a wire stock." However, there is no support whatsoever in the Seibert reference for this assumption about "wire stock." Moreover, the cross sectional view of ring 30 shown in Seibert's Fig. 5 may suggest the contrary (i.e. that the ring 30 may not be formed of a wire stock). Even assuming *arguendo* (and counterfactually) that Seibert included disclosure that ring 30 were formed of a wire stock, such a simple use of a wire stock would teach away from the present disclosure (which is explicitly incompatible with the simple use of a wire stock

as a ring, at least because of the width limitation described in the presently pending patent application on page 15 at line 3, through page 16 at line 5, and claimed in presently-pending claims 36 and 42). Thus, the combination of Toh and Seibert cannot support a proper prima facie case of obviousness of any of the pending claims.

Even if it were proper to combine the Toh and Seibert references, the combination still would not teach all of the elements of pending independent claims 31 and 37. For example, like the Seibert reference, the Toh reference utterly fails to disclose the claimed location ("adjacent to the circumferential gap") of the recessed segments of the interior contour. On the contrary, as shown in Fig. 4 of Toh, the segments of the interior contour of ring 32 of Toh, that lie adjacent the circumferential gap, are not recessed but rather in contact with the pivot cartridge 31. For at least this additional independent reason, the combination of Toh and Seibert cannot support a prima facie case of obviousness of any of the pending claims.

In an earlier office action mailed 01NOV05, US Patent 2,595,787 to Heimann (hereinafter "Heimann") was relied upon to reject certain now-canceled claims under 35 U.S.C. §102(b). To more quickly advance the presently pending claims to allowance by distinguishing all of the pertinent art of record, applicants will now explain that new claims 31-42 are patentable over Heimann.

Specifically, each of new independent claims 31 and 37 requires that the second and third segments must be defined by the relatively larger second radius, and must also be separated from each other by and adjacent to a circumferential gap in the ring. However, Fig. 7 of Heimann clearly shows that the segments of ring 45 that are adjacent to and separated by the circumferential gap (i.e. arcuate segments 50 and 50') are both defined by the smaller radius of curvature (relative to the larger radius of curvature that defines segment 48. Accordingly, Seibert cannot anticipate claims 31-42 under 35 U.S.C. §102(b).

The exemplary distinction described above preventing Heimann from anticipating claims 31-42 is not trivial. On the contrary, the locations of the segments defined by the relatively larger radius (i.e. the recessed regions of the interior contour) are important to enable the claimed snap ring to reduce the creation of debris during assembly (a wholly

distinct purpose from the purpose of the Heimann contour to deform circularly when opened). For example, the written description of the presently pending patent application carefully specified the locations of the locally recessed regions 20 and 21 on page 11, lines 7-10, and depicted such locations in Fig. 1. It would be incompatible with the teachings and performance of the presently claimed invention to reduce debris, if the smaller radius of curvature segments were positioned adjacent the circumferential gap, as in Heimann.

Also in the earlier office action mailed 01NOV05, the drawings were objected to under 37 CFR §1.83(a) for an alleged failure to show a bevel angle range and "the combination of the ring with the actuator arm." This objection is traversed because Fig. 4 depicts, in cross-section, the ring in relation to an actuator arm structure 47 having an axis of rotation 44 and an actuator pivot bearing sleeve 45 with groove 61. This objection is also traversed because no bevel angle range is claimed herein.

In view of the foregoing amendments and remarks, Applicants respectfully submit that pending claims 31-42 are now in condition for allowance. If a telephone conversation might expedite the prosecution of the present application the Examiner is invited to contact the undersigned attorney at the number listed below.

The Commissioner is hereby authorized to charge payment of any required fees associated with this Communication or credit any overpayment to Deposit Account No. 50-4119.

Respectfully submitted,



Date: 01 May, 2007

By: _____
Joshua C. Harrison, Ph.D., Esq.
Reg. No. 45,686

BARCELÓ & HARRISON, LLP
2901 W. Coast Highway, Suite 200
Newport Beach, CA 92663
Tel.: (949) 340-9736
Fax: (949) 258-5752